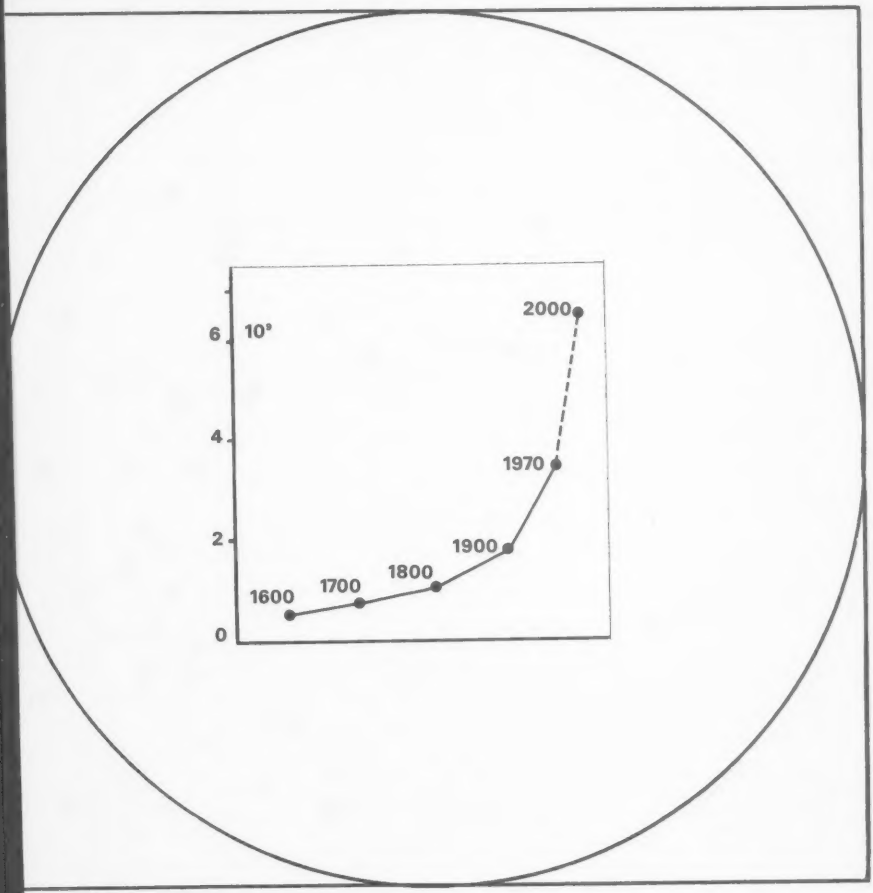
VOL. 25 1982
JANUARY-JUNE
ISSN 0010-7824

CONTRACEPTION

AN INTERNATIONAL JOURNAL



ANIEL R. MISHELL, Jr., M.D.—Editor

blisher: GERON-X, INC., LOS ALTOS, CALIF.

EDITOR
Daniel R. Mishell, Jr., M.D.
Dept. of Obstetrics and Gynecology
University of Southern California School of Medicine
1240 North Mission Road
Los Angeles, California 90033

EDITORIAL ASSISTANTS
Alberta Lawson
Janis H. Torres

BOARD OF ASSOCIATE EDITORS

Wendy Baldwin, Ph.D.
Behavioral Sciences Branch
Center for Population Research
National Institute of Child Health and Human Development
Bethesda, Maryland 20014

C. Wayne Bardin, M.D.
Director, Center for Biomedical Research
The Population Council
1230 York Avenue
New York, New York 10021

Gerald S. Bernstein, Ph.D., M.D.
Associate Professor
Department of Obstetrics and Gynecology
USC School of Medicine
Los Angeles, California 90033

M.C. Chang, Ph.D., Sc.D.
Senior Scientist
Worcester Foundation for Experimental Biology
Shrewsbury, Massachusetts 01545

Philip A. Corfman, M.D.
Director of Population Research
National Institute of Child Health and Human Development
Bethesda, Maryland 20014

Uwe Goebelsmann, M.D.
Director of the Reproductive Endocrinology Laboratory
Women's Hospital
1240 North Mission Road
Los Angeles, California 90033

Joseph W. Goldzieher, M.D.
Professor and Director
Endocrine/Metabolic Research
Department of Obstetrics and Gynecology
Baylor College of Medicine
St. Luke's Episcopal Hospital
Houston, Texas 77030

Roy O. Greep, Ph.D.
Director
Laboratory of Human Reproduction & Reproductive Biology
Harvard Medical School
45 Shattuck Street
Boston, Massachusetts 02115

Roy Hertz, M.D., Ph.D.
Research Professor
Departments of Pharmacology and Obstetrics and Gynecology
George Washington University Medical Center
Washington, D.C. 20037

William D. Odell, M.D., Ph.D.
Professor and Chairman
Department of Medicine
University of Utah College of Medicine
Salt Lake City, Utah 84132

C. Alvin Paulsen, M.D.
Professor of Medicine
Department of Medicine
University of Washington School of Medicine
Seattle, Washington 98114

John J. Sciarra, M.D., Ph.D.
Chief of Staff
Prentice Women's Hospital and Maternity Center
333 East Superior Street
Chicago, Illinois 60611

Sheldon Segal, Ph.D.
Director,
Population Division
Rockefeller Foundation
1133 Avenue of the Americas
New York, New York 10036

William N. Spellacy, M.D.
Professor and Head
Department of Obstetrics and Gynecology
University of Illinois
College of Medicine
840 South Wood Street
Chicago, Illinois 60612

Howard J. Tatum, Ph.D., M.D.
Associate Director
Center for Biomedical Research
Rockefeller University
York Avenue & 66th Street
New York, N.Y. 10021

Corresponding Editors for CONTRACEPTION

E. Coutinho, M.D.
Professor
Department of Biochemistry
and Obstetrics
University of Bahia
Salvador, Bahia, BRAZIL

P. G. Crosignani, M.D.
Professor
IV Department of Obstetrics
and Gynecology
University of Milano
Via M. Mellon, 52
20429 Milano, ITALY

E. Diczfalusy, M.D.
Professor
Reprod. Endocrinology
Research Unit
Swedish Med. Research Council
Karolinska Sjukhuset
Stockholm 60, SWEDEN

J. Ferin, M.D.
Professor
Physiology of Human Reprod.
Research Unit
University of Louvain Hosp.
Louvain, BELGIUM

C. Gual, M.D.
Instituto Nacional de la Nutricion
Hospital de Enfermedades de la
Nutricion
Av. San Fernando y
Viaducto Tlalpan
Mexico 22, D.F., MEXICO

I. Hallbrecht, M.D.
Professor
Department of Obstetrics
and Gynecology
Tel Aviv University Med. School
Tel Aviv, ISRAEL

J. Hammerstein, M.D.
Professor
Abt. Gynaek. Endokrinologie
Sterilitat and Familienplanung
Freie Universitat Berlin
Hindenburgdamm 30
1000 Berlin 45
FED. REP. GERMANY

A. A. Haspels, M.D., Prof.
Department of Obstetrics
and Gynecology
Academic Hospital
University of Utrecht
Catharjinesingel 101
Utrecht, NETHERLANDS

T. Luukkainen, M.D.
Steriod Research Laboratory
University of Helsinki
Department of Med. Chemistry
Siltavuorenpenger 10A
SF-00170 Helsinki 17,
FINLAND

J. R. Newton, M.D., Prof.
Birmingham Maternity Hospital
Queen Elizabeth Medical Centre
Edgbaston, Birmingham 15
ENGLAND

Badri N. Saxena, M.D.
Deputy Director General
Indian Council of
Medical Research
Ansari Nagar
New Delhi-110016, INDIA

R. P. Shearman, M.D.
Professor of Obstetrics
and Gynecology
The University of Sydney
Sydney 2006, N.S.W.
AUSTRALIA

M. Vessey, M.D., Professor of
Social and Community Medicine
Dept. of Community Medicine
& General Practice
University of Oxford
Gibson Laboratory Building
Radcliffe Infirmary
Oxford OX2 6HE
ENGLAND

J. Zanartu, M.D.
Associate Professor
Department of Experimental
Fertility
Universidad de Chile Clinica
Obstetrica
Hospital Jose Joaquin Aguirre
Casilla 6637
Santiago, CHILE

GUIDE FOR AUTHORS

CONTRACEPTION invites concise reports of original research in the experimental and clinical aspects of all areas of contraception. The purpose of this journal is to provide a medium for the rapid communication of advances and new knowledge in this important field. The Editor anticipates receiving manuscripts from workers in the following areas of research: chemistry, biochemistry, physiology, endocrinology, biology, the medical sciences and demography. Publication of original papers within 90 days of manuscript receipt is planned. Authors will be advised of disposition of the manuscript within 30 days of receipt. Manuscripts should be sent to:

Daniel R. Mishell, Jr., M.D., Editor
Department of Obstetrics and Gynecology
University of Southern California School of Medicine
Women's Hospital, Room L1009
1240 North Mission Road
Los Angeles, California 90033

Authors outside the United States should address manuscripts to a corresponding editor in their own country. Authors in countries not represented by a corresponding editor should send their manuscripts directly to The Editor.

CONTRACEPTION

January 1982 Volume 25, Number 1

Multinational comparative clinical trial of long-acting injectable contraceptives: Norethisterone enanthate given in two dosage regimens and depot-medroxyprogesterone acetate. A preliminary report
WHO Task Force on Long-Acting Agents for the Regulation of Fertility 1

Endometrial morphology and peripheral steroid levels in women with and without intermenstrual bleeding during contraception with the 300 µg norethisterone (NET) minipill
E. Johannisson, E.-M. Landgren and E. Diczfalusy 13

Early follicular phase luteinizing hormone-releasing hormone agonist administration - Effects on follicular maturation and corpus luteum function in women
G. Skarin, S.J. Nillius and L. Wide 31

Levonorgestrel in milk and plasma of breast-feeding women with a levonorgestrel-releasing IUD
M. Heikkila, M. Haukkamaa and T. Luukkainen 41

The effect of norethisterone capsules on the pituitary-ovarian axis
I.D. Nuttall, M. Elstein and D.R. Fahmy 51

Guaiacol peroxidase levels in human cervical mucus: A possible predictor of ovulation
J.C.M. Tsibris, J.L. Thomason, A. Kunigk, F.S. Khan-Dawood, C.V. Kirschner and W.N. Spellacy 59

Inhibition of the metabolism and motility of human spermatozoa by various alkaloids
N.P. Trifunac and G.S. Bernstein 69

Serum bile acids during biphasic contraceptive treatment with ethinyl estradiol and norgestrel
J. Heikkinen, P. Ylöstalo, O. Mäentausta and O. Jänne 89

Demonstration of an early abortifacient effect of norethisterone (NET) in the primate (baboon)
L.R. Beck and V.Z. Pope 97

Inhibition of implantation by the intrauterine administration of phospholipases in the rat
C. Vilar-Rojas, I. Ruiz deChávez, A. González-Angulo and J.J. Hicks 107

© 1982, Geron-X, Inc.

CONTRACEPTION is published monthly by Geron-X, Inc.,
Box 1108, Los Altos, California 94022, USA
(415) 493-0871

Two volumes per year
Personal subscription $ 70 per year
Institutional subscription $110 per year
Add $10 for surface postage outside USA
Add $24 for airmail USA. Add $40 for airmail outside USA

Second-class postage paid at Los Altos, Calif. and at additional mailing office.

CONTRACEPTION

February 1982 Volume 25, Number 2

Sequelae of Vasectomy
Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization 119

Sexual and Contraceptive Behavior on a College Campus. A Five-Year Follow-Up
R.W. Hale and D.F.B. Char 125

The Prentif Contraceptive Cervical Cap: A Contemporary Study of Its Clinical Safety and Effectiveness
J.P. Koch 135

The Prentif Contraceptive Cervical Cap: Acceptability Aspects and Their Implications for Future Cap Design
J.P. Koch 161

Evaluation of Sulprostone for Second Trimester Abortions and Its Effects on Liver and Kidney Functions
V.Ranjan, V. Hingorani, G. Kinra, N. Agarwal and Y. Pande 175

Catechol Estrogens and Thrombosis: Lack of a Direct Effect of 2-Hydroxyestradiol on Platelets
S.W. Needleman, D.C. Stump and D.P. Cohen 185

Effect of Tranexamic Acid on the Fibrinolytic Activity of Human Uterine Fluid
B. Casslén 191

Ovarian Morphology During and After Lynestrenol Treatment Around Menopause
L. De Baene, L.J. Van Bogaert, E. De Muylder and K. Thomas 199

Nelaton Catheter in Non-Gravidas for a Safe and Gradual Cervical Softening and Dilatation: A Possible Involvement of Prostaglandins
Y. Manabe, A. Manabe and M. Sakaguchi 211

CONTRACEPTION

March 1982 Volume 25, Number 3

Vaginal Spermicides and Outcome of Pregnancy: Findings in a Large Cohort Study
G. Huggins, M. Vessey, R. Flavel, D. Yeates and K. McPherson 219

A Randomized, Double-Blind Study of Six Combined Oral Contraceptives
WHO Task Force on Oral Contraceptives 231

A Randomized, Double-Blind Study of Two Combined and Two Progestogen-Only Oral Contraceptives
WHO Task Force on Oral Contraceptives 243

Vaginal Administration of Ethinylestradiol: Effects on Ovulation and Hepatic Transcortin Synthesis
U. Schwartz, E. Schneller, L. Moltz and J. Hammerstein 253

A Preliminary Pharmacological Trial of the Monthly Injectable Contraceptive CycloProvera
K. Fotherby, G. Benagiano, H.K. Toppozada, A. Abdel-Rahman, F. Navaroli, B. Arce, R. Ramos-Cordero, C. Gual, B-M. Landgren and E. Johannisson 261

Fertility After Discontinuation of Levonorgestrel-Releasing Intrauterine Devices
C.G. Nilsson 273

Duration of Breast-Feeding and Development of Children After Insertion of a Levonorgestrel-Releasing Intrauterine Contraceptive Device
M. Heikkilä and T. Luukkainen 279

Comparison of the Lippes Loop D and Tapered Lippes Loop D Intrauterine Devices
B. Behlilovic, S. Etman, L.E. Laufe and B. Dixon 293

Pituitary and Ovarian Function During Contraception with One Subcutaneous Implant Releasing a Progestin, ST-1435
P. Lähteenmäki, E. Weiner, P. Lähteenmäki, E.D.B. Johansson and T. Luukkainen 299

The Enzyme Inducing Effect of Rifampicin in the Rhesus Monkey and Its Lack of Interaction with Oral Contraceptive Steroids
D.J. Back, J.O. Barkfeldt, A.M. Breckenridge, V. Odlind, M. Orme, B.K. Park, H. Purba, J. Tjia and A. Victor 307

Erratum 317

Announcement 319

CONTRACEPTION

April 1982 Volume 25, Number 4

Transfer of Contraceptive Steroids in Milk of Women Using Long-Acting Gestagens
S. Koetsawang, P. Nukulkarn, K. Fotherby, K. Shrimanker, M. Mangalam and K. Towobola 321

A Clinical Trial of Norethisterone Oenanthate (Norigest) Injected Every Two Months
G. Howard, M. Blair, J.K. Chen, K. Fotherby, J. Muggeridge, M.G. Elder and P.G. Bye 333

Clinical Performance of a New Levonorgestrel-Releasing Intrauterine Device. A Randomized Comparison with a Nova-T-Copper Device
C.G. Nilsson, T. Luukkainen, J. Diaz and H. Allonen 345

Long-Term Intracervical Contraception with a Levonorgestrel Device
S. El Mahgoub 357

A Simple Method for the Early Detection of Pregnancy: (A) Comparative Study with Radioimmunoassay of β-HCG, and (B) Fallacies Compared to Other Immunological Pregnancy Tests
M. Shaarawy, A.R. Nagui, A. El-Daly and S. Azab 375

Sex Guilt and the Use of Contraception Among Unmarried Women
J.F. Keller and A.R. Sack 387

Elevated Blood Pressure Following LHRH Antagonists in Rats
R.D. Smith and R.A. Edgren 395

Development of a New Method of Insertion of IUD's
J.-G. Wang 405

Clinical and Immunological Responses with Pr-β-hCG-TT Vaccine
S.M. Shahani, P.P. Kulkarni, K.L. Patel, M. Salahuddin, C. Das and G.P. Talwar 421

Effect of Injectable Norethisterone Oenanthate (Norigest) on Blood Lipid Levels
K. Fotherby, I. Trayner, G. Howard, A. Hamawi and M.G. Elder 435

CONTRACEPTION

May 1982 Volume 25, Number 5

A Five-Year Clinical Trial of Levonorgestrel Silastic Implants (Norplant™)
S. Diaz, M. Pavez, P. Miranda, D.N. Robertson, I. Sivin and H.B. Croxatto 447

Plasma Protein Binding of Norethisterone
V. Odlind, A. Victor and E.D.B. Johansson 457

The Effect of Norethisterone (500 mcg) and Ethinyl Estradiol (35 mcg) Capsules on the Pituitary-Ovarian Axis
I.D. Nuttall, M. Elstein and D.R. Fahmy 463

Influence of the Cupric Ion on the Ampicillin Concentration in Cervical Mucus
J. Moesgaard, C. Felding, S. Steenstrup-Pedersen and A. Friis-Møller 471

Effects of Desogestrel and Levonorgestrel in Low-Dose Oestrogen Oral Contraceptives on Serum Lipoproteins
E.W. Bergink, N.E. Borglin, P. Klottrup and P. Liukko 477

Comparative Effects of the Oral Contraceptive Combinations 0.150 mg Desogestrel + 0.030 mg Ethinyloestradiol and 0.150 mg Levonorgestrel + 0.030 mg Ethinyloestradiol on Lipid and Lipoprotein Metabolism in Healthy Female Volunteers
G. Samsioe 487

A Simple High-Throughput Enzymeimmunoassay for Norethisterone (Norethindrone)
A. Turkes, G.F. Read and D. Riad-Fahmy 505

Fibrinolytic Activity of Uterine Fluid in Oral Contraceptive Users
B. Casslén 515

A Rapid Method for the Determination of 5α-Dihydrotestosterone in Thai Males Receiving Medroxyprogesterone Acetate
S. Werawatgoompa, N. Dusitsin, P. Sooksamiti, S. Leepipatpaiboon, P. Virutamasen and B. Boonsiri 523

The Effect of 6-Deoxy-6-Fluoroglucose on the Fertility of Male Rats and Mice
W.C.L. Ford 535

Erratum 547

Announcement 549

CONTRACEPTION

June 1982 Volume 25, Number 6

Long-Lasting Ovulation Inhibition with a New Injectable Progestagen ORG-2154
E.M. Coutinho, J.C. De Souza, I.C. Barbosa and V. Dourado Silva..... 551

Puerperal Insertion of a Copper-Releasing and a Levonorgestrel-Releasing Intrauterine Contraceptive Device
M. Heikkilä..... 561

Demographic Consequences, Client Satisfaction, and Reasons for Selecting Sterilization Among Vasectomy and Tubectomy Clients in Bangladesh
I. Swenson and A.R. Khan..... 573

The Effect of Levonorgestrel and Estrone Rods on Male Reproductive Function
V. Brache, F. Alvarez-Sánchez, P. León, F. Schmidt and A. Faundes..... 591

Endometrial Picture with Oestrogen-Loaded Intrauterine Device
M.A. El-Maraghy, I.Y. Abou Senna and F. El-Thewey..... 605

Comparative Prolactin Profiles in IUD Users and Non-IUD Users
C.A. Adejuwon, S.J. Segal, A. Faundes and F. Alvarez-Sánchez..... 613

Anti-Estrogenic Effects of Contraceptive Progestins on the Dynamics of Gonadotropin Release
A. Römmler, S. Baumgarten, U. Schwartz and J. Hammerstein..... 619

Biosynthesis of Platelet Lipids in Relation to Aggregation in Women Using Oral Contraceptives
M. Ciavatti, E. Davenas, D. Blache, M.A. Monnier and S. Renaud..... 629

A Probe into the Possible Mechanism Underlying the Interceptive Action of Aristolic Acid
A.K. Pal, S.N. Kabir and A. Pakrashi..... 639

Gossypol Uncoupling of Respiratory Chain and Oxidative Phosphorylation in Ejaculated Boar Spermatozoa
W.-W. Tso and C.-S. Lee..... 649

Author Index for Volume 25..... 657

Subject Index for Volume 25..... 661